

**Environment and Natural Resources Trust Fund
2011-2012 Request for Proposals (RFP)**

LCCMR ID: 174-F3+4

Project Title: Urban Waste to Energy Pilot Program

Category: F3+4. Renewable Energy

Total Project Budget: \$ \$329,000

Proposed Project Time Period for the Funding Requested: 1 yr, July 2011 - June 2012

Other Non-State Funds: \$ 0

Summary:

Redesign proposes to engineer anaerobic digestion technology to suit our redevelopment site, to navigate the zoning and permitting hurdles and engage community support and participation throughout the process.

Name: Eddie Landenberger

Sponsoring Organization: Seward Redesign, Inc.

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Location

Region: Metro

Ecological Section: Minnesota and NE Iowa Morainal (222M)

County Name: Hennepin

City / Township: Minneapolis

| | | | |
|---|--|--|---|
| <input type="checkbox"/> Funding Priorities | <input type="checkbox"/> Multiple Benefits | <input type="checkbox"/> Outcomes | <input type="checkbox"/> Knowledge Base |
| <input type="checkbox"/> Extent of Impact | <input type="checkbox"/> Innovation | <input type="checkbox"/> Scientific/Tech Basis | <input type="checkbox"/> Urgency |
| <input type="checkbox"/> Capacity Readiness | <input type="checkbox"/> Leverage | <input type="checkbox"/> Employment | <input type="checkbox"/> TOTAL <input type="checkbox"/> % |

2011-2012 MAIN PROPOSAL

PROJECT TITLE: Urban Waste to Energy: A Pioneer Pilot Program

I. PROJECT STATEMENT

Seward Redesign, Inc., a long-standing community development corporation, intends to change how urban development is powered. In June 2009, Redesign acquired a 4-acre parcel of industrial land named Seward Commons. The site will be redeveloped as a multi-phase transit-oriented development with a minimum of 220 homes and 30,000 square feet of commercial space. Redesign's development will cater to walkers, bikers and transit users and will incorporate the best current energy-efficiency measures including an on-site anaerobic digester district energy facility.

Organic waste to energy via anaerobic digestion is a proven technology in rural areas around the world. Although anaerobic digesters have been emerging in city centers in Europe, high solids anaerobic digestion technology has not yet been put to use in an urban setting within the United States. Currently, the organic wastes that are removed from the conventional trash stream still must be transported to facilities well outside of where those wastes were produced. Redesign's ultimate goal is to site the first of these urban anaerobic digestion facilities within the Seward Commons development and subsequently use our experience to drive similar projects forward in the future.

In order to see this goal to fruition, Redesign proposes to engineer current technology to suit our development site, to navigate the zoning and permitting process in this uncharted territory and engage community support and participation throughout the process. With the help of LCCMR Redesign will be ready to break ground on this facility in July of 2012. Along the way, we will document our work, findings, successes and failures to provide support for communities throughout the state of Minnesota in what will hopefully become a fabric of small facilities managing organic waste and creating power locally without generating a large carbon footprint for transportation.

The primary purposes of this project are as follows:

- 1) To prove the viability of high solids anaerobic digestion technology in urban settings for expansion into other communities;
- 2) To establish procedures and best management practices for engaging public participation and support, addressing zoning and environmental permitting requirements, and best utilization practices for this technology;
- 3) To provide public education regarding the life cycle of a community's organic waste;
- 4) To reduce the carbon footprint of the transportation of a community's organic waste.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Final engineering

Budget: \$220,000

Final engineering for the anaerobic digester pilot facility will include technology to address potential smell and particulates emissions, as well as site-planning for truck access and mitigation on adjacent uses. Redesign will contract with BIOFerm and a landscape architect to carry out this work.

| Outcome | Completion Date |
|--|------------------------|
| <i>1. Design and site planning</i> | <i>November 2011</i> |
| <i>2. Final engineering and technology defined</i> | <i>June 2012</i> |

Activity 2: Zoning and environmental permitting

Budget: \$6,000

As an experienced developer and with the support of LCCMR, Redesign will devote intensive time to work with the City, County, and State in permitting, zoning, and licensing this unprecedented project. This work will pave the way for more projects throughout the state. This experience will be documented in a handbook for local communities to site an urban energy facility and can be supported with services from Redesign.

| Outcome | Completion Date |
|---|------------------------|
| <i>1. Zoning and variances</i> | <i>January 2012</i> |
| <i>2. Navigating zoning and permitting portion of handbook complete</i> | <i>June 2012</i> |

Activity 3: Community education and public participation

Budget: \$14,300

Redesign will create a framework and supporting documents to engage a community in learning about and shaping community-based energy project. As the mid-town burner project proved, an informed and supportive community is key to a successful facility. Through Redesign, this work will be made available to other communities, to site future facilities.

| Outcome | Completion Date |
|--|------------------------|
| <i>1. Community education framework completed and documented in handbook</i> | <i>August 2011</i> |
| <i>2. Public participation process for Seward site approvals</i> | <i>December 2011</i> |
| <i>3. Public outreach and evaluation – construction and start-up phase</i> | <i>June 2012</i> |
| <i>4. Project management services for a second community interested in citing a green energy facility.</i> | <i>Jan –June 2012</i> |

III. PROJECT STRATEGY

A. Project Team/Partners

Redesign was founded in 1969 as a community development corporation in Minneapolis’ Seward neighborhood. Redesign uses development of the built environment to engage the energy and creativity of residents and businesses in the evolution of neighborhoods to serve future generations. Redesign’s developments include the Seward Co-op Grocery & Deli and Milwaukee Avenue. Redesign’s current staff has more than 50 years combined experience in law, construction management, engineering, and real estate development.

Katya Pilling, Associate Director, joined Redesign in May 2006. The focus of her work at Redesign is real estate development and commercial corridor revitalization. Before coming to Redesign, Katya worked at East Side Neighborhood Development Company in St. Paul, on commercial corridor revitalization. Katya has a Masters Degree in Community Economic Development from the Humphrey Institute of Public Affairs.

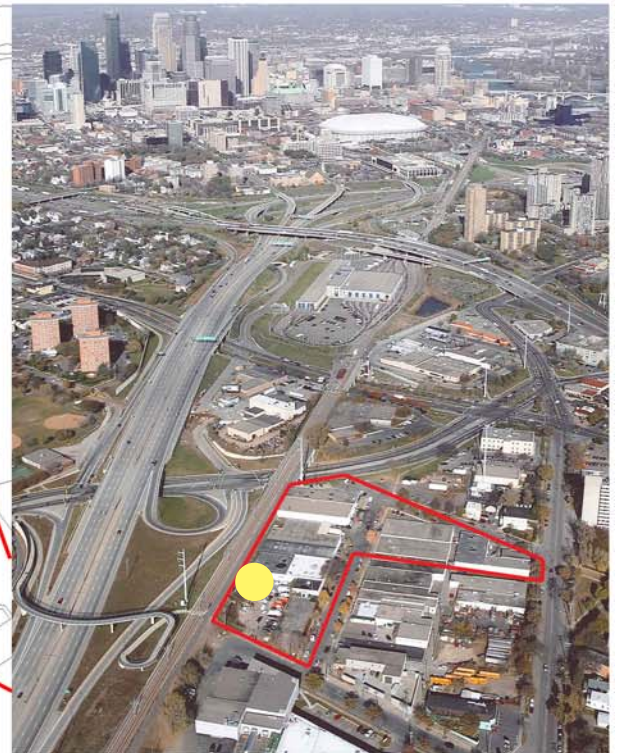
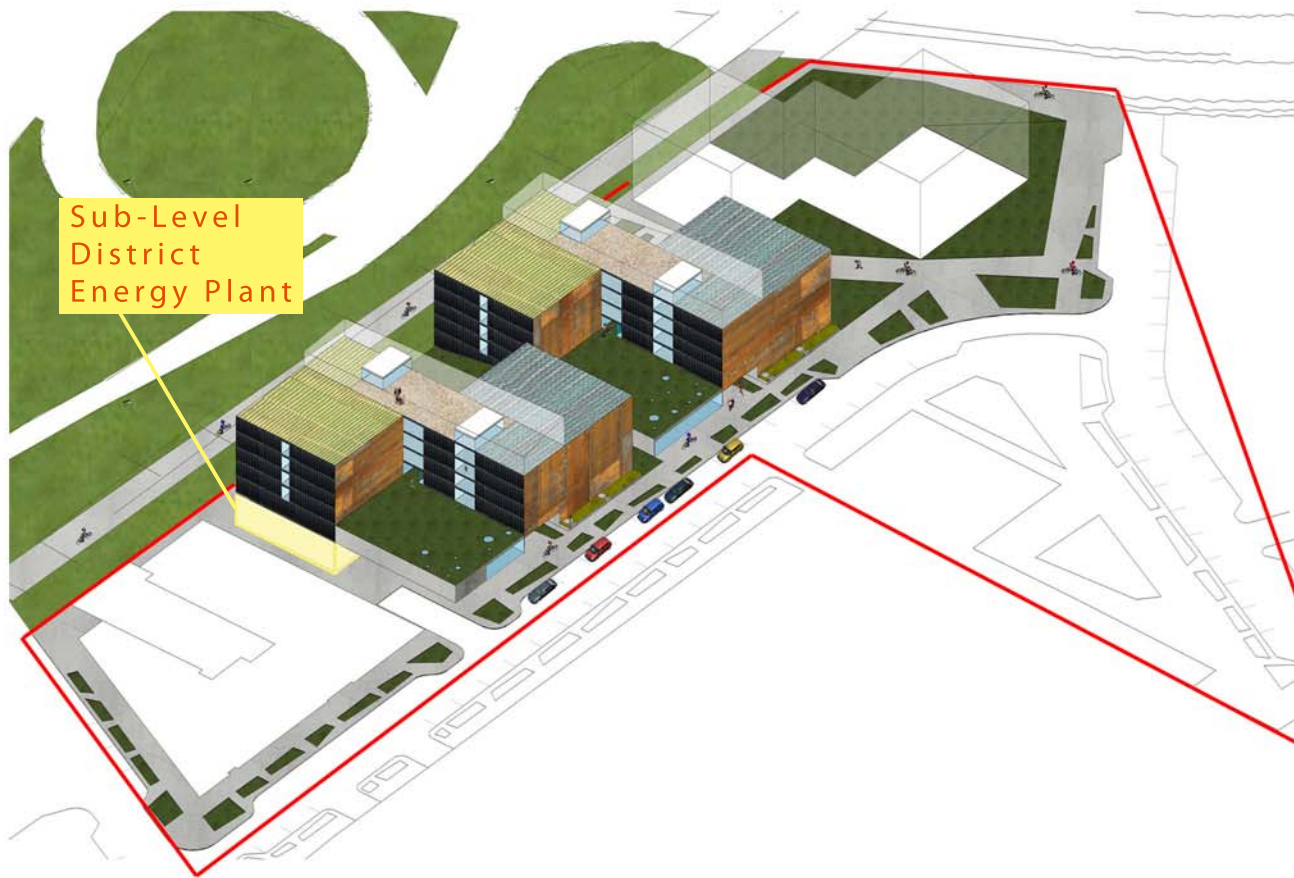
Eddie Landenberger, Senior Project Manager, detailed bio attached.

BIOFerm Energy Systems is a renewable energy company that designs and constructs BIOFerm biogas plants in North America. BIOFerm offers a wide array of alternative energy solutions using biomass and organic waste as inputs. Biogas production from low-cost organic waste allows customers to generate on demand, carbon-neutral energy while controlling rising energy costs and reducing their carbon footprint. Established in 2007, BIOFerm is a subsidiary of GmbH, Germany.

2011-2012 Detailed Budget: Seward Redesign, Inc.

IV. TOTAL TRUST FUND REQUEST BUDGET

| BUDGET ITEM | AMOUNT |
|--|-------------------|
| Personnel: All personell expense includes 16% cost of benefits | |
| Katya Pilling, Associate Director | \$ 21,850.00 |
| Eddie Landenberger, Senior Project Manager (FT). Lead Project Manager for project to completion. | \$ 66,850.00 |
| Contracts: | |
| <i>District Energy (based on a Bio-Teck 104)</i> | |
| Engineering and site planning and construction documents | \$200,000.00 |
| <i>Landscape Architect</i> | |
| Larger development site and access planning | \$ 20,000.00 |
| Zoning and Permitting: | |
| Permit fees | \$ 3,500.00 |
| Reimbursable copying, etc. | \$ 2,500.00 |
| Community meetings | |
| Handbook: | |
| Research writing and editing | \$ 6,000 |
| Copying, binding | \$ 4,500.00 |
| Graphic design | \$ 3,800.00 |
| Acquisition (Fee Title or Permanent Easements): | |
| Seward Redesign already owns the parcel of land on which the anaerobic digester is to be built. | \$ - |
| Travel: | \$ - |
| Additional Budget Items: | \$ - |
| TOTAL ENVIRONMENT & NATURAL RESOURCES TRUST FUND \$ REQUEST | \$ 329,000 |



PROJECT MANAGER QUALIFICATIONS & ORGANIZATION DESCRIPTION

Redesign was founded in 1969 as a community development corporation in Minneapolis' Seward neighborhood. Redesign is a place-based community development corporation. We work across disciplines using longer-term strategies to build healthy neighborhoods that the private market is not able to pursue. Redesign's approach creates opportunity for immigrants, women, small business owners and neighbors to bring their absolute best to the evolution of our homes and neighborhoods.

Redesign uses development of the built environment to engage the energy and creativity of residents and businesses in the evolution of neighborhoods to serve future generations. We envision the Seward neighborhood and other places where we work as healthy, diverse, sustainable neighborhoods where all people have the opportunity to thrive. Redesign's developments include the Seward Co-op Grocery & Deli and Milwaukee Avenue. Redesign's current staff has more than 50 years combined experience in law, construction management, engineering, and real estate development.

Eddie Landenberger, Senior Project Manager, will serve as the lead on this project. Eddie began at Redesign in early 2008. At Redesign, Eddie has served as the lead on the redevelopment of the 2111 E. Franklin Building. Redesign helped local businessman, Worku Mindaye, to purchase the building being vacated by Seward Co-op at 2111 Franklin Avenue as part of their move to a larger space. Redesign arranged financing (five sources of financing, including a New Markets Tax Credits Small Projects Pool), managed the design of Worku's expanded facility for his injera bakery, supervised construction and leased the remaining space in this project to two other immigrant businesses, Seward Copy & Post and Koyi Too Sushi.

Eddie was *Co-Founder* of Capital Concept Partners, Inc., in Eden Prairie, MN in 2005, where he was in charge of development and commercial sales and leasing. Capital Concept Partners key project under Landenberger was lead was the Bent Creek Business Center Project, the redeveloped of 35,000 square feet of commercial office space into commercial condominiums.

Landenberger has extensive experience and training in green building and sustainability. He led the Emerging Green Builders, Twin Cities, from 2005-2007, completed LEED training, and facilitated the certification process to obtain LEED Gold status for the E2 City Homes project in Minneapolis by The Urban Project development company.

From 2004-2005, Landenberger made use of his B.S. in Civil Engineering from the University of Minnesota-Twin Cities, Institute of Technology (2000), as a Project Engineer for CH2M Hill in New York City. In this position, Landenberger was responsible for on-site management and inspection of several large-scale container terminal redevelopment projects, plus projects with structural and utility design. He also worked as a Structural Engineer for Parsons Brinckerhoff, New York City (2000-2004).

Eddie has his Commercial real estate license, and achieved a mini-Masters of Real Estate Development, from the University of St. Thomas in 2006.